D 95 Manchester [Type 42 Batch 3] - 1998

United Kingdom



Type: DDG - Guided Missile Destroyer
Max Speed: 30 kt
Commissioned: 1998
Length: 141.1 m
Beam: 14.9 m
Draft: 5.8 m
Crew: 301
Displacement: 3500 t
Displacement Full: 4850 t
Propulsion: 2x Rolls-Royce Tyne RM-1A Cruise Gas Turbines, 2x Rolls-Royce Olympus TM-3B Boost Gas Turbines, COGOG

Sensors / EW:
- Type 909(I) - (1990, Sea Dart Illuminator, GFCR) Radar, Radar Illuminator, Long-Range, Max range: 111.1 km
- Type 675 [ECM] - (Group) ECM, OECM & DECM, Offensive & Defensive ECM, Max range: 0 km
- Type 675 [ESM] - (Group) ESM, ELINT, Max range: 926 km
- Type 2050 [UMS 4110C] - (1988, Improved Type 2016, FMS 21) Hull Sonar, Active/Passive, Hull Sonar, Active/Passive Search & Track, Max range: 29.6 km
- Type 162M Cockshafer - (1988, Improved Type 2016, FMS 21) Hull Sonar, Active-Only, Hull Sonar, Active-Only Bottom Profiler, Max range: 1.3 km
- Type 1022 [LW.08] - (1979) Radar, Radar, Air Search, 2D Long-Range, Max range: 333.4 km
- Type 1007 - (1988, KH 1007) Radar, Radar, Surface Search & Navigation, Max range: 177.8 km
- UAA-2 Abbey Hill - (Susie, Assoc w Type 675) ESM, ELINT, Max range: 926 km
- Radamec 2100 RNEOSS - (Susie, Assoc w Type 675) Visual, Visual, Weapon Director & Target Search, Tracking and Identification TV Camera, Max range: 55.6 km
- Type 996(2) [AWS.9(3D)] - (1989, No IFF) Radar, Radar, Target Indicator, 3D Surface-to-Air, Max range: 203.7 km
- UAD Classic Outboard [AN/SSQ-72] - (1989, No IFF) ESM, HF/DF w/ OTH Targeting, Max range: 926 km

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Weapons / Loadouts:
- 20mm/70 Oerlikon Mk7 Burst [20 rnds] - Gun. Air Max: 1.5 km. Surface Max: 1.9 km. Land Max: 1.9 km.
- 114mm/55 Mk8 HE(MP) HE - Gun. Air Max: 2.8 km. Surface Max: 18.5 km. Land Max: 18.5 km.
- Generic GMTR [Guided Missile Training Round] - (Aka Drill Round) Training Round.
- Sea Dart Mod 2 - (1990, Impr Autopilot) Guided Weapon. Air Max: 111.1 km. Surface Max: 46.3 km.
- Generic Test Round - (Annoying stuff that fill up magazines) Training Round.
- 20mm/85 Mk15 Phalanx Blk 0 Burst [200 rnds] - Gun. Air Max: 1.5 km.
- Stingray Mod 0 - (1986) Torpedo. Subsurface Max: 7.4 km.
- Type 182 Towed Torpedo Decoy - Decoy (Towed). Surface Max: 1.9 km.
- Mk214 Sea Gnat Chaff [Seduction] - (1987) Decoy (Expendable). Surface Max: 1.9 km.

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- Mk245 GIANT Flare - (1997, DM19A1) Decoy (Expendable). Surface Max: 1.9 km.
- Mk216 Sea Gnat Chaff [Distraction] - (1988) Decoy (Expendable). Surface Max: 1.9 km.
- Plessey Shield Flare - Decoy (Expendable). Surface Max: 1.9 km.
- Plessey Shield Chaff - Decoy (Expendable). Surface Max: 1.9 km.

OVERVIEW: The MANCHESTER class (Type 42 Batch 3) is a COGOG-powered guided missile destroyer (DDG).

DETAILS: The MANCHESTER class was designed to provide area air defense for a task force. The class used a combined gas or gas
(COGOG) to power its two shafts. In this system, a high efficiency, low output turbine is used for cruising speeds with a high output turbine being used for high-speed operations. The main problem with this engineering plant is the extreme noise it develops, rendering the Type 42 unsuited for long, slow stalking of a quiet submarine. The Batch 3 is a much improved design over Batch 1 and 2, drawing from experience with these earlier batches, whose survivability and update potential was compromised by their small hull. Although with identical weapons, sensors, superstructure and propulsion package, Batch 3 featured a 16.1 meter extension in hull length and a 0.61 increase in beam. These modifications increased the sea keeping of the Batch 3 over its predecessors. Additionally, the larger size allowed for more duplicative systems, a stronger hull and improved firing arcs for the SEA DART and gun.

Specifications:

Displacement: 3,500 tons (standard); 4,775 (full load)
Speed: 30 knts
Engineering: 2 shaft, 4 gas turbines (2 for full power, 2 for cruise)
Range: 4,000 nm @ 18 knts
Complement: 301
In Commission: 1982-2013
Completed: 4

NOTES: Units in class: MANCHESTER (D95); YORK (D98); GLOUCESTER (D96); EDINBURGH (D97). The Type 42 was conceived as a lighter and cheaper alternative to the Type 82, while maintaining much of the Type 82's capabilities. The Type 42 achieved this by using a much smaller hull than the Type 82, deleting the Ikara ASW missile and the Limbo ASW mortar, and maxizing system centralization and automation, while minimizing system duplication, and using economical living spaces. This made it possible to fit these capabilities into a small hull.

SOURCES: Moore, John Evelyn. Jane's Fighting Ships 1987-88. London: Jane's Pub, 1987, pg. 662 ; "Type 42 Destroyer." Wikipedia, the Free Encyclopedia. Accessed May 17, 2015. http://en.wikipedia.org/wiki/Type_42_destroyer ; "Type 42." GlobalSecurity.org - Reliable Security Information. Accessed May 17, 2015. http://www.globalsecurity.org/military/world/europe/type42.htm.